

# CENTURYLINK™ TEACHER AND TECHNOLOGY PROGRAM COMPETITIVE SUB-GRANT PROPOSAL ASSURANCE SHEET

Project Title: Stop Waiting and Start Learning with Laptops!! Amount of Request: \$ 4995.

Name of Certificated Teacher (or "lead teacher" if more than one): Molly Stump

Name of School currently teaching at: Pioneer School of the Arts

District Name: Meridian District Number: 2

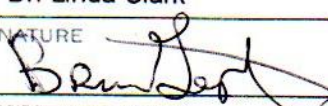

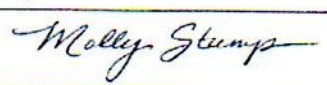
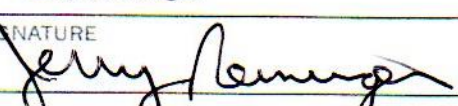
Total number of teachers involved (if more than one): Beginning as a solo project, hoping to spread!

Approximate number of students impacted: 29 minimum, with potential for 100+ Grade level(s) impacted: 4<sup>th</sup> grade

Content area(s) impacted: science, technology, math, language arts, visual & performing arts, soc. studies

**I certify that if I receive a CenturyLink™ Teacher and Technology Program Grant –**

- **I agree to create a 5-minute video highlighting my project for the purposes of sharing best practices with other Idaho K-12 teachers.**
- **I agree to do one presentation on my project to other Idaho K-12 teachers before December 31, 2014 (by 5 pm MST).**
- **I agree to submit an electronic report to the Idaho State Department of Education on or before December 31, 2014.**

SUPERINTENDENT NAME (PRINT) <b>Dr. Linda Clark</b>	E-MAIL <a href="mailto:clark.linda@meridianschools.org">clark.linda@meridianschools.org</a>	TELEPHONE (208)855-4500
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PRINCIPAL NAME (PRINT) <b>David Jakious</b>	E-MAIL <a href="mailto:jakious.david@meridianschools.org">jakious.david@meridianschools.org</a>	TELEPHONE (208)855-4100
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TEACHER OR LEAD TEACHER NAME (PRINT) <b>Molly Stump</b>	E-MAIL <a href="mailto:stump.molly@meridianschools.org">stump.molly@meridianschools.org</a>	TELEPHONE (208)855-4100
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TECHNOLOGY DIRECTOR (PRINT) <b>Jerry Reininger</b>	E-MAIL <a href="mailto:reininger.jerry@meridianschools.org">reininger.jerry@meridianschools.org</a>	TELEPHONE (208)855-4500
SIGNATURE 		

**Submit one digital copy of your proposal (PDF format) by January 10, 2014 (by 5 pm MST) via e-mail to:**

Todd Lawrence  
tlawrence@sde.idaho.gov  
208.332.6959

**Proposals submitted after that date and time will not be considered.**

**\*Only one PDF file per teacher applicant will be accepted (this includes the assurance sheet). Faxes will not be accepted.**

## CenturyLink Teachers and Technology Program Applicant certification

As an applicant for a CenturyLink Teachers and Technology grant, you are required to certify the following statements. Please ensure that you work with the necessary individuals within your school or district to ensure that the following statements are accurate.

1. After reasonable investigation (such as conferring with the school's network administrator), the applicant does not anticipate that the proposal, if selected for award, would significantly increase the school's network capacity needs.

Molly E Stump  
Signature of applicant

[Signature]  
Signature of principal

01/6/14  
Date

1/6/14  
Date

2. The applicant is not involved in any procurement decisions regarding the purchase of the school's telecommunications and internet services, including its participation, if any, in the E-Rate program.

Molly E Stump  
Signature of applicant

[Signature]  
Signature of principal

01/6/14  
Date

1/6/14  
Date

3. The applicant confirms that receiving this grant will have no impact on and will not be considered in E-rate procurement decisions for their school or school district.

Molly E Stump  
Signature of applicant

[Signature]  
Signature of principal

01/6/14  
Date

1/6/14  
Date

Applicant's Name (please print): Molly Stump

City and State: Meridian, ID

School Name: Pioneer School of the Arts

School District: Meridian #2








## Current Innovation

“Is there a computer open?” If I had a dollar for every time I heard that question, I probably wouldn’t need to write a grant! My classroom needs funds to purchase laptops, though, because students are waiting for a turn at a computer. **They’re waiting for a turn to learn!**

My fourth grade classroom at Pioneer School of the Arts is a busy, productive environment where I strive to engage all students in meaningful learning experiences. My class has 29 eager learners and 5 desktop computers (two of which are nicknamed “the dinosaurs”). In addition to the classroom computers, I also allow students to use my own personal laptop. The computers are used for activities that increase engagement, productivity, and achievement. The students use them as part of their **process** for learning and for creating a myriad of **products** to demonstrate their learning. The computers are constantly in use, but even with creative scheduling and rotations, it is still a struggle to give everyone a “turn”.

Despite this, computer use is still integral in my approach as I work to help students achieve Common Core Standards and develop the skills, creativity, and problem-solving abilities they will need to succeed in our rapidly changing world. To enhance and support student learning, Pioneer has a school-wide arts focus, and in my classroom, I am also attempting to bring in “STEAM” (Science, Technology, Engineering, Arts, and Math). You have probably heard of STEM, but recent discussion focuses on adding the “A” (Arts) to STEM to help students become more creative, innovative thinkers (see <http://stemtosteamp.org/>). Many of the activities in my class involve **integrated experiences that use technology to tie together the arts and other subject areas such as math or science**.

Below is a small sampling of how I currently use the few computers I have to inspire student learning and achievement. I need laptops so I can more efficiently and effectively use technology to boost student learning in all subject areas!

<p><b>Project:</b> “The Large Number News”  <b>Subjects:</b> Math, Art, Language Arts  <b>Synopsis:</b> While learning about place value, students research how large numbers are used in real life. They work in teams to write scripts and produce a video of a mock newscast that includes very large numbers in each report.</p> 	<p><b>Project:</b> “Encyclopedia of Space”  <b>Subjects:</b> Science, Art, Lang. Arts  <b>Synopsis:</b> Students use the NASA website and other online sources to research and become “experts” on a space topic (a planet, black holes, asteroids, etc.). They then collaboratively author and illustrate a professional-looking “Encyclopedia of Space”.</p>  
<p><b>Project:</b> Corps of Discovery Trading Cards  <b>Subjects:</b> History, Art, Lang. Arts  <b>Synopsis:</b> Each student researches a member of Lewis and Clark’s expedition, creates a portrait of the individual, and writes informational text. The portrait and text are printed on “trading cards” for students to swap with classmates.</p> 	<p><b>Project:</b> “Written and Illustrated by. . .”  <b>Subjects:</b> Art, Language Arts  <b>Synopsis:</b> Using Publisher and scans of their artwork, students become “published authors” by creating an original book to share with friends and families.</p> 
<p><b>Activity:</b> “Think Through Math” web-based program     <b>Subject:</b> Math  <b>Synopsis:</b> Students get differentiated practice with math concepts in a fun format that tracks their progress and allows them to earn and redeem points.</p>	
<p><b>Activity:</b> Online math fact practice and monitoring     <b>Subject:</b> Math  <b>Synopsis:</b> Students use websites that provide engaging practice and a way for them to monitor their own progress toward master of basic multiplication and division facts.</p>	
<p><b>Activity:</b> Interactive websites     <b>Subjects:</b> Science, Math, Social Studies, Lang. Arts, Art  <b>Synopsis:</b> Students use websites to practice geography skills, explore the Oregon Trail, wrangle with math concepts, sharpen vocabulary skills, study artists’ work, classify animals, and more!</p>	

## **Project Narrative**

### **Introduction**

Imagine a workplace or office where five business professionals have to share one computer. Chances are that office is not performing, producing, or achieving at the level it could be if more technology was available. In my classroom, I currently have a ratio of 5:1 (five students for every computer). I believe my students could be performing and achieving at higher levels if more computers were available to them.

The activities and projects described in the “Current Innovations” section show how I am currently using technology to engage students and help them take their learning to new levels in multiple subject areas. I listed several projects and activities as examples; however, in the course of a school year, my students are actually exposed to dozens of technology experiences with access to only the following computers:

- Five desktop computers (two of which are nicknamed “the dinosaurs” due to slow processing)
- One laptop (my personal property)
- An occasional extra 30 minutes –maybe once or twice a month– in the school’s computer lab *(Note: Our school of 700+ children shares one lab of 30 computers. Each class receives 30 minutes per week of keyboarding or software instruction from the computer lab instructor. During testing blocks, such as MAP or SBAC, the lab is devoted solely to testing. This takes 6-8 weeks out of the year. Computer classes and extra lab access are both cancelled during testing blocks. Time in the school’s lab is sparse, but I attempt to finagle a few extra minutes any time I can).*

### **Project Details**

I am seeking funding from this grant to purchase nine Lenovo Thinkpad laptops to be used in my classroom on a daily basis. These laptops along with my current devices will create a 2:1 ratio of students to computers. That’s a much more efficient and practical ratio than the current 5:1. The 2:1 ratio will give me the flexibility to have students use computers in pairs, small groups, or individually. The laptops will allow me to extend and expand my current practices and increase student learning by giving students **more** (more practice with interactive, web-based activities; more access to online resources for research; more opportunities to publish and share work; and more engaging technology-enhanced projects).

The goal of this grant project is to use laptops and technology-based learning experiences on a daily basis in the classroom to increase student engagement, productivity, and achievement. Below is a list of some of the general learning experiences I am planning for my students. The list explains why each experience is valuable and how laptops will support or improve the experience. *(Please note that activities I use in the classroom are aligned with Common Core State Standards in Math and Language Arts and with the Meridian District’s standards in Science, History, and Art).*

**WHAT: Research.** Students will conduct online research (in addition to using print resources) for numerous classroom projects and assignments.

**WHY:** Integrated research projects aligned with 4<sup>th</sup> grade Math, Science, or History help students build content knowledge as well as research skills. Online sources include the most up-to-date information, and doing online research requires students to evaluate sources, read complex texts, and determine important/key points of the text.

**HOW LAPTOPS IMPROVE THIS:** Currently, students only get a brief turn to use online resources for research. This limits all learners. It is especially restrictive for struggling readers (who need more time to make sense of the text) and for high-achieving learners (who want to take the research to a deeper level). Laptops will allow students to have more time for their online research.

**WHAT: Math Fact Practice and Monitoring.** Students use interactive sites to practice multiplication and division facts. They use a website to test their fact recall and monitor progress.

**WHY:** Quick recall of basic facts is critical so students can devote more “thinking power” to understanding and solving complex, multi-step math problems.

**HOW LAPTOPS IMPROVE THIS:** The laptops will allow me to arrange a regular schedule for all students to take advantage of online practice and monitoring. Struggling students will benefit from consistent, daily math fact practice.

**WHAT: Think Through Math.** This web-based program is a supplement to my regular math instruction. It starts each student with a placement test, then provides lessons based on the results.

**WHY:** The program provides differentiated math practice since the lessons are tailored to each student. It can help struggling students strengthen weak areas and challenge high-achieving students to do above grade level work. Students find it motivational because it includes a fun points system and avatars.

**HOW LAPTOPS IMPROVE THIS:** The laptops will allow me to better utilize Think Through Math for all students. Currently, only the “early finishers” and highest achieving math students have the chance to use the site on a regular basis, due to the lack of computers.

**WHAT: Writing Projects and Products.** Writing projects in my class are usually tied to content areas such as Math, Science, Art, or History. Whether students are creating a poem, a story, a report, or a persuasive essay, I try to have them use the computer for “publishing” their piece and for other steps of the writing process, too (the writing process includes prewriting, drafting, revising, editing, & publishing).

**WHY:** Students love the idea of “publishing” their writing by typing and presenting it in a creative format. Students who are striving to produce a polished piece for “publishing” are motivated to make sure their writing is interesting, clear, and error free. Typing drafts makes the editing and revision process easier. For example, the red spell-check lines in Word give students immediate feedback on spelling, and the built in thesaurus and dictionary features can be used to improve word choice.

**HOW LAPTOPS IMPROVE THIS:** Laptops will greatly reduce the amount of time needed to rotate everyone through the typing and publishing stage. It will allow more opportunities for creative publishing of writing pieces (collaborative books, posting to web, blogging, creating brochures, etc.).

**WHAT: Literary Responses.** Throughout the year, my students read many books including several that are related to our History and Science topics. Students do “reading responses” to analyze, reflect on, and share what they read.

**WHY:** Analyzing, reflecting, and sharing helps students comprehend the text. Stories related to Science and History help deepen content knowledge in those areas.

**HOW LAPTOPS IMPROVE THIS:** Typical book reports or reading responses can be a “turn-off” to many students. Laptops allow students to respond in creative ways. For example, a student might analyze the protagonist in a book using Wordle.net (a website that creates word pictures). He could create one Wordle representing the character at the beginning of the story and another for the end of the story. He can then explain how the character changed through the course of the story.

**WHAT: Interactive Websites.** Student use interactive sites to practice and learn a variety of subjects.

**WHY:** Students find the interactive sites engaging. The sites also provided immediate feedback to the learner, which helps advance student learning.

**HOW LAPTOPS IMPROVE THIS:** Currently, I have to arrange time in the school’s lab or rotate students through brief turns to use the sites. With laptops, though, more students can spend more time doing great web-based activities such as building a food chain, testing an electrical circuit, classifying animals, exploring a gold rush boomtown, earning a gold medal for grammar, or hundreds more!

## **Team Members**

I am beginning this endeavor as a solo project with the support of my principal, David Jakious. My hope is that I can share my experiences, and my classroom can become a model for other teachers in my school (and district) who are interested in incorporating more technology.

I also intend to promote more technology use in my school by making the laptops available to other 4<sup>th</sup> grade teachers at times when my class is not using them. By encouraging other teachers to do technology-enhanced projects/activities and loaning my classroom laptops, the impact of this grant will be extended far beyond the 29 students in my class (to approximately 120 4<sup>th</sup> graders).

## **Feasibility**

Even though my students are 9-10 years old, they are comfortable with technology and they are willing and eager to embrace it as a learning component. With my guidance and supervision on issues such as file management, safe web practices, and how to properly care for the equipment (all of which are excellent things for students at this age to learn), I am confident that my students and I can easily manage and maintain the laptops.

## **Sustainability**

The Lenovo Thinkpad laptops that will be purchased were recommended by the district. They are moderately-priced, durable laptops that are compatible with our network and can be maintained by our technicians. Numerous classrooms and schools in the district are already successfully and sustainably using Lenova Thinkpads.

## **Support**

The Meridian School District supports the use of technology in the classroom and encourages teachers to seek grants for funding technology. The District embraces 21<sup>st</sup> century learning and has multiple ways of providing support, training, collaboration, and sharing for teachers who integrate technology. District technicians are available to provide support for hardware and software needs. In addition, Pioneer principal, David Jakious, is highly supportive of technology use in our classrooms.

## **Anticipated Outcomes/Impact**

Laptops will result in more efficient use of technology and time in my classroom! To illustrate this, consider how my current situation plays out when I try to give each of my 29 students 20 minutes of time at a computer. It takes five 20 minute rotations to give all students a turn (that's 100 minutes). Of course, I currently make sure students who are not at the computer are using their 80 minutes of "wait time" productively on other tasks, but this rotation structure is long and it limits the types of things that can be done (i.e. whole group discussion is not an option; using the projector is not an option). With nine additional laptops, though, every student could "have a turn" in just two 20 minute rotations (40 minutes total). That's a 60% reduction in time and an hour of instruction time that's not chopped up into rotations!

So, laptops will allow me to more efficiently involve students in valuable technology-enhanced learning experiences that encourage learning in multiple subject areas. The impact on students will be multifaceted. I expect to see the impact in quantitative ways (stronger performance on tests such as MAP and SBAC; a higher completion rate of assignments; improvement on graded work), and I expect to see it in qualitative ways (higher engagement; increased motivation; students taking more pride in their work). I believe the wide range of benefits for students will include:

- **Strengthening of basic math skills** (math fact recall will improve due to consistent practice)
- **Strengthening of basic language skills** (grammar and reading skills will improve as students are involved in authentic technology-based reading and writing projects)
- **A higher-level of engagement** (technology use is motivational for students)
- **A stronger understanding of math and science concepts** (due to research projects, use of interactive websites, and differentiated practice)
- **Development of higher-level thinking skills** (researching and presenting requires students to analyze, synthesize, evaluate, and create)
- **Improved collaboration and presentation skills** (due to partner work on projects and sharing/presentation of knowledge through creative formats)
- **Increased keyboarding abilities** (this will help prepare students for the incoming SBAC tests which will require 4<sup>th</sup> graders to type many answers)

As you can tell, I believe the addition of nine laptops will have considerable impact on my classroom! One of the most noticeable, though, could be that my students will no longer come to me and ask, "Is there a computer open?" They won't have to. They'll be too busy collaborating, creating, and **LEARNING WITH LAPTOPS!**

### **Scope and Sequence**

May-June 2014	<ul style="list-style-type: none"> <li>• Order laptops.</li> <li>• Document/catalog equipment upon arrival and work with school technician to prepare laptops for classroom use.</li> <li>• Begin using laptops in classroom, if at all possible.</li> </ul>
July 2014 (summer break)	<ul style="list-style-type: none"> <li>• Begin planning 2014-15 classroom schedule to include more computer activities.</li> <li>• Review and adjust lesson plans to fully utilize new technology.</li> </ul>
August 2014	<ul style="list-style-type: none"> <li>• School begins the first week of August (Pioneer has a modified/year-round calendar). Introduce students to laptop use while setting clear expectations for care and usage of laptops.</li> <li>• Establish a system and schedule for online math fact practice and monitoring.</li> <li>• Set up Think Through Math accounts for students and have students take placement tests. Implement a schedule for students to use TTM website.</li> <li>• Establish a check-out system for other teachers who wish to use laptops.</li> <li>• Have students begin using computers to publish writing (starting with a bio-poem for open house night and a character trait narrative for a class book).</li> </ul>
Sept. to Dec. 2014	<ul style="list-style-type: none"> <li>• Use interactive websites to support content of various subject areas (History, Science, Math, Language Arts, Art). Begin compiling a list of these sites to share with other teachers.</li> <li>• Introduce/model various ways for students to complete reading responses (Wordle, Power Point, paper slide videos, possibly blogging).</li> <li>• Continue to involve students in writing tasks for publishing/sharing (Native American Legend, poetry).</li> <li>• Introduce students to online research to support class projects/activities such as The Large Number News, biome paintings, Native American museum display project, Corps of Discovery trading cards, etc.</li> <li>• Arrange a presentation about laptop use in my classroom to share with other teachers in my school and possibly beyond (District technology showcase?).</li> </ul>
Dec. 2014	<ul style="list-style-type: none"> <li>• Have students complete a brief reflection on how the use of technology has affected their engagement and achievement in the classroom.</li> <li>• Prepare a 5-10 minute video for sharing best practices.</li> <li>• Submit electronic report to State Department of Education.</li> </ul>
Dec. 2014 & beyond	<ul style="list-style-type: none"> <li>• Continue using laptops to help students learn!!!!!!</li> </ul>

**Goal:** Use laptops and technology-based learning experiences on a daily basis in the classroom to increase student engagement, productivity, and achievement.

**Possible Evaluation Strategies for December:**

- ▶ Review student progress toward mastery of math fact levels.
- ▶ Review reports from Think Through Math regarding student growth.
- ▶ Examine products created by students. Do products demonstrate creativity as well as understanding of content?
- ▶ Informally observe students during work sessions. Are they engaged? On task?
- ▶ Consider student technology reflections. Do students feel that the technology use is helping them learn and achieve?

### **Budget Narrative**

The goal of this project is to use laptops and technology-based learning experiences on a daily basis in my classroom to increase student engagement, productivity, and achievement.

Funds from the Century Link Teacher and Technology Program Grant in the amount of \$4995 will be used to purchase nine Lenovo x131E Thinkpad laptops. These durable laptops are designed for use in schools and are currently in use in numerous schools in the Meridian District. The individual price of \$555 includes the necessary charging cord and software, and there is no shipping charge. The laptops will be ordered as soon as grant results are received, and they will be put into use as soon as possible in the classroom.

The laptops will be used on a daily basis to give students learning opportunities in multiple subject areas. Please refer to the "Scope and Sequence" section and the "Project Narrative" section for complete details about the timeline and plan for implementation.

I strongly believe that laptops will have a significant impact on student engagement, productivity, and achievement in my classroom, so if funding is not available from Century Link, I will pursue other grants and fundraising opportunities. I may even shamelessly beg relatives for donations. I hope to eventually expand this project beyond my classroom to other 4<sup>th</sup> grade classes at my school and as the project progresses, I will continually be on the hunt for funding sources.



**Budget Spreadsheet**

Item	Quantity	Unit Price	Subtotal
Lenovo x131E Thinkpad Laptop	9	\$555	\$4995
Shipping			(none)
		Grand Total	\$4995